

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently amended) A method of modeling wireless interference among wireless links between a plurality of wireless nodes in a wireless network, the method comprising:

accepting connectivity information for the network;

identifying wireless links between nodes of the network from the connectivity information; and

creating a graph from the connectivity information, wherein

~~representing~~ each identified wireless link is represented as a vertex in the graph,~~[[;]]~~

~~creating~~ an edge is created between a first vertex and a second vertex in the graph if the corresponding wireless links interfere with one another,~~[[;]]~~

~~assigning to the edge~~ a direction is assigned to the edge,~~[[;]]~~ and

~~assigning to the edge~~ a weight is assigned to the edge, the weight being equal to a fraction of a maximum permissible noise at a link corresponding to the second vertex contributed by activity on the link corresponding to the first vertex.

2. (Currently amended) The method of claim 1 wherein the graph is a conflict graph, and wherein the act of accepting connectivity information ~~is represented by further comprises accepting~~ a connectivity graph.

3. (Canceled)

4. (Canceled)
5. (Original) The method of claim 1 wherein each node is equipped with exactly one radio.
6. (Original) The method of claim 1 wherein each node is equipped with a plurality of radios.
7. (Original) The method of claim 1 wherein all nodes communicate on exactly one wireless channel.
8. (Original) The method of claim 1 wherein each node may communicate on a plurality of wireless channels.
9. (Original) The method of claim 1 wherein each node is equipped with exactly one omni-directional antenna.
10. (Original) The method of claim 1 wherein each node is equipped with a plurality of directional antennae.
11. (Original) The method of claim 1 wherein each node is equipped with a plurality of omni-directional antennae.
12. (Original) The method of claim 1 wherein all wireless links have equal capacities.
13. (Original) The method of claim 1 wherein the wireless links may have different capacities.
14. (Original) The method of claim 1 wherein a receiving node must be free of interference for a transmission to be successful.

15. (Original) The method of claim 14 wherein a sending node must be free of interference for a transmission to be successful.

16. (Original) The method of claim 1 further comprising making routing decisions based on the created edges and vertices.

17. (Original) The method of claim 1 further comprising making network infrastructure decisions based on the created edges and vertices.

18. (Currently amended) A computer-readable storage medium containing computer-executable instructions for modeling wireless interference among wireless links between a plurality of wireless nodes in a wireless network, the computer-executable instructions performing steps comprising:

accepting connectivity information for the network;

identifying wireless links between nodes of the network from the connectivity information; and

creating a graph from the connectivity information, wherein

~~representing~~ each identified link is represented as a vertex in the graph,[[;]]

~~creating~~ an edge is created between a first vertex and a second vertex in the graph if the corresponding wireless links interfere with one another,[[;]]

~~assigning to the edge~~ a direction is assigned to the edge,[[;]] and

~~assigning to the edge~~ a weight is assigned to the edge, the weight being equal to a fraction of a maximum permissible noise at a link corresponding to the second vertex contributed by activity on the link corresponding to the first vertex.

19. – 89. (Cancelled)